Listing of Claims:

1. (Currently amended) A device for voice activity detection, comprising:

a sound signal analyser ~~arranged~~ configured to determine whether a sound signal comprises speech, comprising:

a microphone system ~~(2a, 2b, 2c, 2d, 2e) arranged~~ configured to discriminate sounds emanating from sources located in different directions from the microphone system, ~~characterised in that~~ wherein the ~~device is adapted~~ microphone system is configured to determine the direction of a sound source causing sound signals, [[;]] and is ~~adapted~~ configured to further analyse the sound to determine whether the sound signal comprises speech, if the sounds emanate from a first range of directions, [[;]] but to decide that the sound signal does not comprise speech, if the sounds emanate from a second, different range of directions.

2. (Currently amended) A device according to claim 1, ~~characterised in that~~ wherein the first range of directions is directed in ~~the~~ a direction of an intended user's mouth (3).

3. (Currently amended) A device according to claim 2, ~~characterised in that~~ wherein the microphone system comprises two microphone elements ~~(2a, 2b)~~ separated a distance and located on a line directed in the direction of an intended user's mouth ~~(3)~~.

4. (Currently amended) A device according to claim 3, ~~characterised in that~~ wherein the first range of directions is defined as an area ~~all sounds~~ falling inside a cone with a cone angle α, wherein $10° < \alpha < 30°$.

5. (Currently amended) A device according to claim 4, ~~characterised in that~~ wherein α is approximately 25°.

6. (Currently amended) A device according to claim 2, ~~characterised in that~~ wherein the microphone system comprises three microphone elements ~~(2b, 2c, 2d)~~ separated a distance and located in a plane directed in the direction of an intended user's mouth ~~(3)~~.

7. (Currently amended) A device according to claim 6, ~~characterised in that~~ wherein two ~~(2c, 2d)~~ of said three microphone elements are separated a distance and located on a line directed perpendicular to the direction of an intended user's mouth ~~(3)~~.

8. (Currently amended) A device according to claim 2, ~~characterised in that~~ wherein the microphone system comprises four microphone elements ~~(2b, 2c, 2d, 2e)~~, located such that the fourth microphone ~~(2e)~~ is not located in the same plane as the three others ~~(2b, 2c, 2d)~~.

9. (Currently amended) A device according to claim 3, ~~any one of claims 1 to 8, characterised in that~~ wherein the microphone elements ~~(2a, 2b, 2c, 2d, 2e)~~ are directional with a pattern having maximal sensitivity in the direction of an intended user's mouth ~~(3)~~.

10. (Currently amended) A device according to claim 1, ~~characterised in that~~ wherein the microphone system comprises one directional microphone element together with one or more other microphone elements ~~adapted~~ configured to remove the uncertainty in the direction of the sound source.

11. (Currently amended) A device according to ~~claims~~ claim 10, ~~characterised in that~~ wherein the directional microphone element is ~~adapted~~ configured to measure ~~the~~ a sound pressure level relative to the other microphone ~~element~~ elements.

12. (Currently amended) ~~A mobile apparatus, characterised in that it comprises a device as defined in any one of claims 1 to 11~~ A device according to claim 10, wherein the device is a mobile apparatus.

13. (Currently amended) A mobile apparatus according to claim 12, ~~characterised in that~~ wherein the microphone elements ~~(2a, 2b, 2c, 2d)~~ are located at a ~~the~~ lower edge of the apparatus.

14. (Currently amended) A mobile apparatus according to claim 12, ~~characterised in that~~ wherein a plurality of microphone elements ~~(2a, 2b, 2c, 2d)~~ are located at the lower edge of the apparatus and at least one ~~further~~ microphone element ~~(2e)~~ is located at a distance from the lower edge.

15. (Currently amended) A mobile apparatus according to any one of claims 12 to 14, ~~characterised in that~~ wherein the mobile apparatus comprises ~~it is~~ a mobile radio terminal, ~~e.g. a mobile telephone (1),~~ a pager, a communicator, an electric organiser and/or ~~or~~ a smartphone.

16. (Currently amended) An accessory for a mobile apparatus, comprising: ~~characterised in that in that it comprises a microphone system (2a, 2b, 2c, 2d, 2e) as defined in any one of claims 1 to 11.~~

a microphone system configured to discriminate sounds emanating from sources located in different directions from the microphone system, wherein the microphone system is configured to determine the direction of a sound source causing sound signals, and is configured to further analyse the sound to determine whether the sound signal comprises speech, if the sounds emanate from a first range of directions, but to decide that the sound signal does not comprise speech, if the sounds emanate from a second, different range of directions.

17. (Currently amended) An accessory according to claim 16, ~~characterised in that~~ wherein the direction of the first range of directions is adjustable.

18. (Currently amended) An accessory according to claim 16 ~~or 17~~, ~~**characterised in that**~~ wherein the accessory ~~in that it~~ is a hands-free kit.

19. (Currently amended) An accessory according to claim 16 ~~or 17~~, ~~**characterised in that**~~ wherein the accessory ~~in that it~~ is a telephone conference microphone.

20. (Currently amended) A method for voice activity detection, ~~**characterised in that**~~ comprising: ~~by the steps of:~~

receiving sound signals from a microphone system ~~(2a, 2b, 2c, 2d, 2e) arranged~~ configured to discriminate sounds emanating from sources located in different directions from the microphone system;

determining the direction of the sound source causing the sound signals;

analyzing the sound signals to determine whether the sound signals comprise speech if the ~~sounds~~ sound signals emanate from a first range of directions~~, further analyse the sound to determine whether the sound signal comprises speech~~; and ~~but if the sounds emanate from a second, different range of directions decide that the sound signal does not comprise speech.~~

determining that the sound signals to do not comprise speech if the sound signals emanate from a second, different range of directions.

21. (Currently amended) A method according to claim 20, ~~**characterised in that**~~ wherein the first range of directions is directed in the direction of an intended user's mouth ~~(3)~~.

22. (Currently amended) A method according to claims 21, ~~**characterised in that**~~ wherein the first range of directions is defined as an area ~~all sounds~~ falling inside a cone with a cone angle α, wherein $10° < \alpha < 30°$.

23. (Currently amended) A method according to claims 22, ~~**characterised in that**~~ wherein α is approximately 25°.

24. (Currently amended) A method according to claim ~~any one of claims~~ 22 ~~or 23~~, ~~characterised in that~~ wherein the microphone system comprises at least two microphone elements ~~(2a, 2b)~~ located at a distance d from each other and located on a line directed in the direction of an intended user's mouth ~~(3)~~, ~~said two microphone elements being separated a distance d,~~ wherein the direction to the sound source θ is calculated as

$$\theta = \arccos \frac{\Delta t \cdot v}{2 \cdot d}$$

where

Δt is ~~the~~ a time difference between the sounds from the two microphone elements,

v is ~~the~~ a velocity of sound.

25. (Currently amended) A method according to ~~claims~~ claim 20, ~~characterised in that~~ further comprising:

using one directional microphone element ~~is used~~ together with one or more other microphone elements to ~~remove the~~ reduce uncertainty in the direction of the sound source.

26. (Currently amended) A method according to ~~claims~~ claim 25, ~~characterised in that~~ further comprising:

using the directional microphone element ~~is used~~ to measure ~~the~~ a sound pressure level relative to the other microphone element.